

Claims

1. Device for vitality diagnostics on a test person having an output unit (10) associated with a data processing device which is constructed to output a visual and/or acoustic signal for the test person, as well as an actuating and sensor device (10, 22, 42) which is set up to capture an input actuation of the test person in response to the visual or acoustic signal, wherein an output signal of the actuating and sensor device is captured as data by the data processing device and processed further for determining vitality-related data and the actuating and sensor device together with the output unit possess a common touch-sensitive and/or pressure-sensitive screen (10), characterised in that the screen is mounted in a screen housing (12) foldably with respect to a housing unit (16) containing the data processing device in such a way that in an operating state the screen housing sits up on the housing unit preferably lockably at at least one predetermined angle and in a non-operating state the screen housing lies by its flat screen side on a flat face (20) of the housing unit.
2. Device according to claim 1, characterised in that the housing unit is constructed in the form of a flat housing (16) on which at an end or edge a bracket unit (14) pivotably connected to the screen housing (12) is hinged.
3. Device according to claim 2, characterised in that the bracket unit is constructed in such a way that in the non-operating state it lies on a rear side of the screen housing (12).

4. Device for vitality diagnostics on a test person having an output unit (12) associated with a data processing device which is constructed to output a visual and/or acoustic signal for the test person, as well as an actuating and sensor device (10, 22, 42) which is set up to capture an input actuation of the test person in response to the visual or acoustic signal, wherein an output signal of the actuating and sensor device is captured as data by the data processing device and processed further for determining vitality-related data and the actuating and sensor device together with the output unit possess a common touch-sensitive and/or pressure-sensitive screen (10) and the data processing device is accommodated in a housing unit (16), characterised in that the actuating and sensor device is connected for purposes of signals and/or data to an additional manually manipulable detector and/or vibration unit (22, 42) which is constructed for actuation or manipulation by the test person as well as
- for measuring the force of a hand acting on the detector unit (12)
 - or for measuring air pressure produced by blowing into the detector unit (42)
 - or for visually presenting a optical pattern viewable by the test person
 - or for generating a vibration signal, variably controllable preferably in frequency or amplitude, which is perceptible to the test person,
- wherein the detector and/or vibration unit (22, 42) is provided to be detachable and at least partially lowerable in the housing unit (16).

5. Device according to claim 4, characterised in that the housing unit possesses at least one depression (38) let in to one side for accommodating the detector and/or vibration unit.
6. Device according to claim 4 or 5, characterised in that the detector and/or vibration unit is constructed attachably to a socket unit (40) mounted pivotably in the housing unit and/or providing a charging function for the wirelessly linked detector and/or vibration unit.
7. Device for vitality diagnostics on a test person having an output unit (10) associated with a data processing device which is constructed to output a visual and/or acoustic signal for the test person, as well as an actuating and sensor device (10, 22, 42) which is set up to capture an input actuation of the test person in response to the visual or acoustic signal, wherein an output signal of the actuating and sensor device is captured as data by the data processing device and processed further for determining vitality-related data and the actuating and sensor device together with the output unit possess a common touch-sensitive and/or pressure-sensitive screen (10), characterised in that the actuating and sensor device is connected to at least one additional manually manipulable detector and/or vibration unit (22, 42) which in a housing (24, 44) connected wirelessly by signal transmission implements at least two of the following functionalities for generating the output signal:
 - measuring the force of a hand acting on the detector unit (22),

- measuring air pressure produced by blowing into the detector unit (42),
- visual presentation and, by means of an adjustable eyepiece, distortion of an optical pattern viewable by the test person,
- generation of a vibration signal variably controllable in frequency or amplitude to be sensed by the test person,

wherein the screen and/or the detector and/or vibration unit is provided with means for capturing an adjustment or control movement (26) of the test person.

8. Device according to claim 7, characterised in that the optical pattern is constructed in the form of a figure composed of a plurality of luminous segments viewable through an eyepiece (36) which is adjustable by means of a control signal, wherein the luminous segments are constructed to be selectively addressable and are arranged preferably in the shape of a circle.
9. Device according to claim 7 or 8, characterised by bracket unit (26) provided externally on a wirelessly linked housing (24) which unit is constructed for the application by the test person of the force of a hand to be measured to a pressure measurement unit (28) provided in the housing (24) and for the generation of operating and/or control signals by pressure actuation by the test person.
10. Device according to any of claims 4 to 9, characterised in that the manually manipulable detector and/or vibration unit (22, 42) is connected to the housing unit (16) by means of a wireless link acting on the basis of microwaves or radio.

11. Device according to any of claims 1 to 10, characterised in that the data processing device for controlling the actuating and sensor device together with the output unit is constructed in such a way that the output unit produces a visually visible signal on a subdomain of the pressure-sensitive screen (10) and the actuating and sensor device is constructed for detecting a touch on the subdomain by the test person.
12. Device according to claim 11, characterised in that the data processing device is constructed for detecting and evaluating a sequence of touches on a plurality of subdomains in response to the display of a corresponding plurality of visually visible signals on the screen.
13. Device according to any of claims 1 to 12, characterised in that the data processing device is constructed for reproducing a preferably animated audio, text and/or image presentation for operator guidance on the screen which is activatable in response to a touch on a predetermined subdomain on the screen by the test person.
14. Device according to any of claims 1 to 13, characterised in that the data processing device possesses means for data communication with a server unit connectable via a public data transmission network.